Exercise 1 *Let f be a function defined by $f(x) = 3x$ and g be a function defined by $g(x) = \dfrac{1}{3x+1}$. Use the pair of functions f and g to find the following values, if they exist. If the value does not exist, enter DNE.*

(a) $(f+g)(2) = \boxed{\dfrac{43}{7}}$

(b) $(f-g)(-1) = \boxed{-\dfrac{5}{2}}$

(c) $(g-f)(1) = \boxed{-\dfrac{11}{4}}$

(d) $(fg)\left(\dfrac{1}{2}\right) = \boxed{\dfrac{3}{5}}$

(e) $\left(\dfrac{f}{g}\right)(-2) = \boxed{30}$

(f) $\left(\dfrac{g}{f}\right)(0) = \boxed{DNE}$